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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/676,249	09/30/2003	Lester F. Ludwig	2152-3018	6374

22242 7590 12/02/2008

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EXAMINER	
FLETCHER, MARLON T	

ART UNIT	PAPER NUMBER
2837	

MAIL DATE	DELIVERY MODE
12/02/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/676,249	LUDWIG, LESTER F.	
	Examiner	Art Unit	
	Marlon T. Fletcher	2837	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *29 August 2008*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-102* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-102* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

1. Applicant's request for reconsideration of the finality of the rejection of the last Office action is persuasive and, therefore, the finality of that action is withdrawn.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-102 rejected under 35 U.S.C. 102(e) as being anticipated by Hasebe (5,990,408).

Hasebe. (claims 1, 17, 23, 39, 45, 62, 79, 91) discloses a multi-channel signal processing system comprising: a transducer signal interface (2, 3) for receiving a plurality of distinct incoming audio electrical signals produced in response to vibrations of an associated plurality of vibrating elements; a plurality of signal processors (12-14, 19), wherein each processor of said plurality of signal processors receives a selected one of said plurality of incoming audio electrical signals, wherein each processor of said plurality of signal processors process a received incoming audio electrical signal to produce an audio output signal, wherein said processing of said received incoming audio electrical signal is performed by variably changing one or more signal attributes of

said received incoming audio electrical signal (figure 3), wherein said one or more attributes is selected from the group consisting of: pitch, timbre, or timing (column 4, line 30- column 5, line 10; and column 5, line 40 – column 6, line 8); and an output signal interface (23) for providing said audio output signal for each of said plurality of signal processors.

Hasebe (claims 2, 24, 58, 59, 75, 76, 80, 92) discloses the system, wherein at least one processor (19) of said plurality of signal processors is controlled by an incoming signal processing control signal.

Hasebe (claims 3, 25, 56, 57, 73, 74, 81, 93) discloses the system, wherein each processor of said plurality of signal processors provide said processing according to a selected one of a plurality of pre-programmed processing instructions (column 5, lines 46-56).

Hasebe et al. (claims 4, 26, 55, 82, 94) discloses the system, wherein an incoming signal processing control signal (via control sect 16) is used to select said one of said plurality of pre-programmed mixing instructions; wherein synthesizer mixes (22) the incoming signals.

Hasebe (claims 5, 27, 61) discloses the system, wherein said plurality of signal processors define first and second groups of signal processors (12-14), wherein each signal processor of said first group of signal processors process said received incoming audio electrical signal by variably changing at least one signal parameter selected from the group consisting of: pitch, timbre, or timing (column 4, line 30- column 5, line 10; and column 5, line 40 – column 6, line 8); wherein said second group of signal

processors independently process said received incoming audio electrical signal by variably changing at least one signal parameter selected from the group consisting of: pitch, timbre, or timing (column 4, line 30- column 5, line 10; and column 5, line 40 – column 6, line 8).

Hasebe (claims 6, 28, 83, 95) discloses the system, wherein each processor of said plurality of signal processors further process said received incoming audio electrical signal by modulating signal amplitude of said received incoming audio electrical signal (column 4, lines 22-29).

Hasebe (claims 7, 29, 84, 96) discloses the system, wherein at least one of said plurality of vibrating elements is a tunable, fixed-pitch vibrating element (abstract).

Hasebe (claims 8, 30, 85, 97) discloses the system, wherein at least one of said plurality of vibrating elements is a variable-pitch vibrating element (abstract).

Hasebe (claims 9, 31) discloses the system, wherein each processor of said plurality of signal processors dynamically modulates the timbre of said received incoming audio electrical signal; wherein (claim 10, 32) each processor of said plurality of signal processors changes the pitch of said received incoming audio electrical signal (column 5, line 61 – column 6, line 13); wherein (claims 11, 33, 78) each processor of said plurality of signal processors changes the timing of said received incoming audio electrical signal (figure 3).

Hasebe (claims 12, 13, 14, 16, 34, 35, 36, 38, 45, 47-52, 54, 62, 64-69, 71, 72, 86-88, 90, 98-100, 102) discloses said system further comprising: a controllable output mixer (22) for receiving said plurality of audio output signals, wherein said plurality of

audio output signals are controllably mixed by said controllable output mixer according to a selected one of a plurality of pre-programmed mixing instructions to produce at least one outgoing mixed audio output signal.

Hasebe (claims 15, 37, 53, 60, 70, 89, 101) discloses the system, wherein said at least one outgoing mixed audio signal comprises a signal of MIDI format (column 7, lines 35-40).

Hasebe (claims 18, 40) discloses the system, wherein each processor of said plurality of signal processors receives a fixed selection of one of said plurality of incoming audio electrical signals (figure 3 – the processors clearly receive fixed incoming audio signals).

Hasebe (claims 19, 21, 41, 43) discloses the system, wherein said selection is determined by a switch (25), wherein (claims 20, 42) said switch is controlled by stored pre-programmed instructions (wherein the functions are programmed).

Hasebe (claims 22, 44, 46, 63, 77) discloses the system, wherein said incoming switch control signal comprises a signal of MIDI format (via MIDI converter 18)

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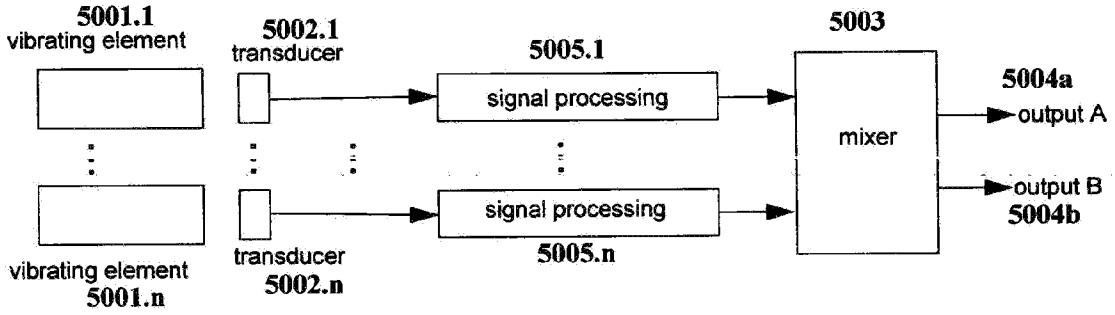
Response to Arguments

3. Applicant's arguments filed 1/28/2008 have been fully considered but they are not persuasive.

The applicant continues to argue audio and control signals. The cited reference operates in the same manner as applicant's present invention or application. There is

clearly audio output and input. In a broad sense and device that processes the input audio can be considered as a processor. The applicant argues that because devices (12-14) produce control signals, that they can not be considered a signal processor as claimed. The examiner disagrees with the statement. I guess the applicant assumes that the audio input vanishes once it enters the signal processors. Clearly any control signals or attributes become part of the output signal. What would the control signals enhance or vary, if the audio signal no longer exists. These are basic points that the applicant continues argues. Let's look at applicant's figure 51, which applicant regards as his invention:

Applicant's Figure 51



The transducer picks up the audio input from the vibrating elements and sends the signal to the signal processors, which sends the signal to a mixer, which then outputs the audio signal. Compare this to the prior art figure 3 of Hasebe.

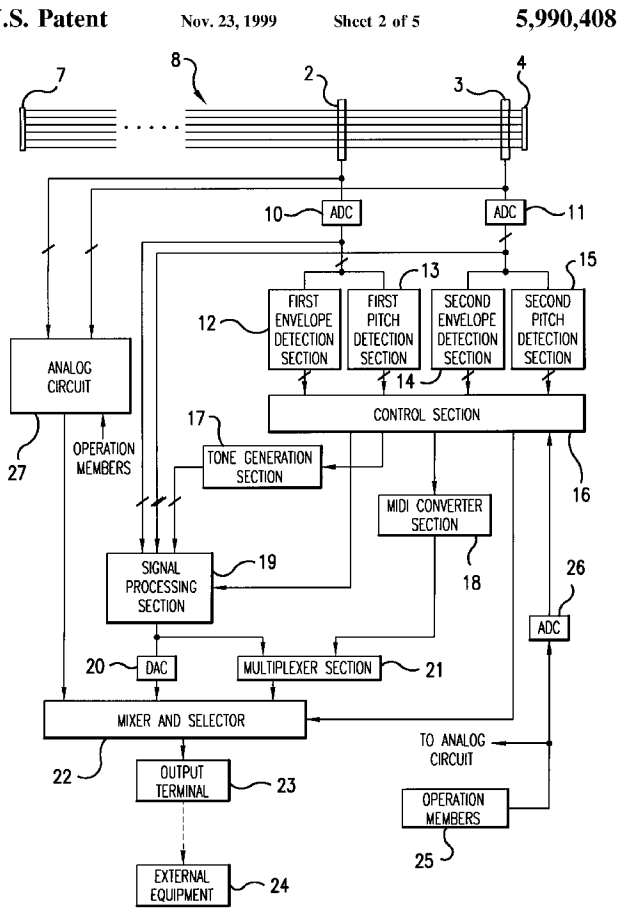


FIG.3

Hasebe transducers (2, 3) that pick up the vibrating strings (8) and sends the audio signals to the processors (12-14, 19), which sends the audio signal to a mixer (22), which outputs the audio signal at output terminal (23).

Clearly each element is seen in the prior art (Hasebe). Applicant continues to argue points that should be clear to one skilled in the art. It appears that the applicant wants to argue points just for the sake of argument. Obviously there is nothing new or

improved in the broadly written claims. The examiner has tried to point out that the control signal and audio signal go hand-and-hand. The applicant would rather argue the differences between control signals and audio signals, than advance the prosecution of the case. Every element of the claims, is met by the prior art. Although, the prior art provides more elements than recited in the claims, the prior art comprises all of the elements or limitations recited in the claims. The dependent claims are merely tedious recitations that are re-worded throughout the numerous (102) claims. However, all of the dependent claims are addressed.

Many of the applicant's arguments arguments and questions are self explanatory, to one familiar with the art. A signal capable of producing audio is an audio signal. No new art has been added. The examiner has now gone through the tedious steps of placing a claim number next to each of the recitations that apply to the 102 claims. Since many of the claims repeat claim recitations or language, the claim numbers are written in groups to show the correspondence.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marlon T. Fletcher whose telephone number is 571-272-2063. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Walter Benson can be reached on 571-272-2227. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

MTF
11/24/2008

/Marlon T Fletcher/
Primary Examiner, Art Unit 2837